

REMARKS

1. In the above-captioned Office Action, the Examiner objected to claims 3, 12, and 26. Claims 1, 2, 5, 6, 13, 16-18, 30, and 31 were rejected under 35 U.S.C. §102(b) in view of Mason et al. (U.S. Patent No. 4,158,348). Claims 1, 2, 5, 6, 8, 10, 11, 13, 16-18, 20, 23, 24, and 27-31 were rejected under 35 U.S.C. §102(b) in view of Quenneville (U.S. Patent No. 4,510,900). Claims 1, 4-6, 8, 13, 16, 17, 28, 30, and 31 were rejected under 35 U.S.C. §102(e) in view of Feucht (U.S. Patent No. 6,405,707). Claims 9 and 25 were rejected under 35 U.S.C. §103(a) in view of Quenneville. Claims 7, 14, 15, 19, and 32 were rejected under 35 U.S.C. §103(a) given Mason in view of Vattaneo et al. (U.S. Patent No. 5,839,400). Claims 7, 14, 15, 19, 21, 22, and 32 were rejected under 35 U.S.C. §103(a) given Quenneville in view of Vattaneo. These rejections are traversed and reconsideration is hereby respectfully requested.

2. Claims 1, 2, 5, 6, 13, 16-18, 30, and 31 were rejected under 35 U.S.C. §102(b) in view of Mason. Claims 7, 14, 15, 19, and 32 were rejected under 35 U.S.C. §103(a) given Mason in view of Vattaneo. Prior to discussing the merits of the Examiner's position, the applicant believes it would be helpful to first briefly describe and characterize the Mason reference.

THE MASON REFERENCE

As stated in Mason:

An engine retarder for a fuel injection engine wherein a charge of fuel is pumped to each cylinder under pressure in timed sequence to reach the cylinder near top dead center of its stroke. A selectively operated bypass valve enables that measured charge of fuel to be delivered at the same time in the cycle, not the into the cylinder, but to an actuator which opens the cylinder's exhaust valve near the completion of the piston's compression stroke and then allows the valve to close, the charge of fuel being returned to the tank [Abstract].

Mason therefore describes an engine brake that operates only on the exhaust valves of an engine based on the position of a single spool 36 in FIG. 1 for all of the cylinders at the same time. Mason therefore does not describe operation on an intake valve as set forth in independent claim 1 as amended above, nor operation independent of engine operation condition as set forth in independent claim 13 as amended above, nor that control is provided independently for each cylinder of the internal combustion engine as set forth in independent claim 31 as amended above.

3. Claims 1, 2, 5, 6, 8, 10, 11, 13, 16-18, 20, 23, 24, and 27-31 were rejected under 35 U.S.C. §102(b) in view of Quenneville. Claims 9 and 25 were rejected under 35 U.S.C. §103(a) in view of Quenneville. Claims 7, 14, 15, 19, 21, 22, and 32 were rejected under 35 U.S.C. §103(a) given Quenneville in view of Vattaneo. Prior to discussing the merits of the Examiner's position, the applicant believes it would be helpful to first briefly describe and characterize the Quenneville reference.

THE QUENNEVILLE REFERENCE

As stated in Quenneville:

A compression release engine retarder for a multicylinder four-stroke engine is disclosed. The retarder incorporates an hydraulic pulse generator including a multichamber positive displacement pump of the piston and cylinder or gear pump type which is positively driven at engine speed or at half engine speed in synchronism with the engine crank shaft [Abstract].

Quenneville therefore describes an engine brake that operates only on the exhaust valves of an engine based on the position of a pulse generator 85 in FIG. 3-5 for all of the cylinders. Control for each cylinder is fixed to the pulse generator, which is fixed to the crank shaft. Quenneville therefore does not describe operation on an intake valve as set forth in independent claim 1 as amended above, nor controlled in part by operation of a fixed timing mechanism and independent of operation of other valves for each combustion chamber other than the at least one combustion chamber as set forth in independent claim 8 as amended above, nor operation independent of engine operation condition as set forth in independent claim 13 as amended above, nor that control is provided independently for each cylinder of the internal combustion engine as set forth in independent claim 31 as amended above.

4. Claims 1, 4-6, 8, 13, 16, 17, 28, 30, and 31 were rejected under 35 U.S.C. §102(e) in view of Feucht. Prior to discussing the merits of the Examiner's position, the applicant believes it would be helpful to first briefly describe and characterize the Feucht reference.

THE FEUCHT REFERENCE

As stated in Feucht:

An integral engine fueling and engine compression braking hydraulically actuated, electronically controlled unit injector (HEUI) system comprises a fuel

injection piston. A brake rocker arm extends transversely through the fuel injector and axially accommodates the fuel injector plunger and plunger return spring. The brake rocker arm is also operatively connected to the engine exhaust valve rocker arm, and a camming shaft, having a flat or planar surface portion, is operatively connected to an end portion of the brake rocker arm. When the end portion of the brake rocker arm is disposed in contact with the flat or planar surface portion of the camming shaft, normal fuel injection can occur in accordance with an electronic control module (ECM). When the electronic control module (ECM) actuates a servomechanism for rotating the camming shaft such that the end portion of the brake rocker arm is disposed in contact with a curved portion of the camming shaft, a brake actuation sleeve, mounted upon the brake rocker arm, engages the fuel injection piston such that upon actuation of the fuel injection piston, the brake rocker arm causes the exhaust valve rocker arm to actuate the exhaust valve so as to achieve engine compression braking [Abstract].

Feucht therefore describes an engine brake that operates only on the exhaust valves of an engine based on the position of a camshaft that operates on all of the cylinders in a fixed manner. Feucht therefore does not describe operation on an intake valve as set forth in independent claim 1 as amended above, nor operation independent of engine operation condition as set forth in independent claim 13 as amended above, nor that control is provided independently for each cylinder of the internal combustion engine as set forth in independent claim 31 as amended above.

5. Because neither Mason, Quenneville nor Feucht teaches the claims of the present invention, the applicant respectfully submits that claims 1, 8, 13, and 31 may be passed to allowance.

Furthermore, claims 2-7, 9-12, 14-19, and 21-25, 27-29 and 32 are dependent upon an independent claim that is shown to be allowable. For all these reasons, the dependent claims are themselves allowable.

6. No new subject matter is introduced by the amendments to the above claims.

7. The Applicants cancel claim 26 without prejudice or disclaimer and amend claim 20 to include the subject matter of claim 26. The cancellation of claim 26 and amendment of claim 20 are not an admission that Quenneville teaches claim 20 nor that Quenneville renders the limitations obvious. The cancellation and amendments

Instead reflects the Applicants' desire to expeditiously proceed and prosecute the remaining claims in this application.

8. The above amendment and response is necessary because it places the application in condition for allowance and was not previously entered because the Examiner first brought the grounds of rejection in the Final Office Action.

9. The Examiner is invited to contact the undersigned by telephone or facsimile if the Examiner believes that such a communication may advance the prosecution of the present application. Notice of allowance of claims 1-32 is hereby respectfully requested.

Respectfully submitted,

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